**3GPP TSG-RAN4 Meeting #94-e *R4-2002582***

**Online, , 24th Feb 2020 - 6th Mar 2020 revision of R4-2000418**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.101-1** | **CR** | **0211** | **rev** | **1** | **Current version:** | **16.2.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
|  | | | | | | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | CR for 38.101-1: Corrections to intra-band CA tables | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Sprint Corporation, ZTE, Huawei | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_CA\_R16\_intra-Core | | | | |  | ***Date:*** | | | 2020-02-13 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) Rel-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Table 5.2A.1-2 has some band combinations with incorrect notation, and Note 1 is missing from some TDD band combinations.  Rev1: CA\_40B should be CA\_n40B in Table 5.5A.1-1. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Corrects the notation for CA\_n41, CA\_n48 and CA\_n66 in Table 5.2A.1-2 and changes Table 5.2A.1-1 Table 5.2A.1-2 to say that Note 1 applies to all TDD bands.  Rev 1 uses the format CA\_XX(\*) in Table 5.2A.1-2 and adds a note to explaine the format. This is a merger between R4-2000418, R4-2000328 and R4-2001074. Also adds CA\_n40B to Table 5.2A.1-1 and corrects CA\_40B to CA\_n40B in Table 5.5A.1-1 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Table 5.2A.1-2 would continue to have inconsistent notation and some of the TTD bands would not reference Note 1. CA\_n40B would be missing from Table 5.2A.1-1 and Table 5.5A.1-1 would have CA\_40B instead of CA\_n40B. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.2A.1, 5.5A.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev 1 uses the format CA\_XX(\*) in Table 5.2A.1-2 and adds a note. This is a merger between R4-2000418, R4-2000328 and R4-2001074. | | | | | | | | |

<Start of changes>

### 5.2A.1 Intra-band CA

NR intra-band carrier aggregation is designed to operate in the operating bands defined in Table 5.2A.1-1 and Table 5.2A.1-2, where all operating bands are within FR1.

Table 5.2A.1-1: Intra-band contiguous CA operating bands in FR1

|  |  |
| --- | --- |
| NR CA Band | NR Band  (Table 5.2-1) |
| CA\_n1 | n1 |
| CA\_n7 | n7 |
| CA\_n40 | n40 |
| CA\_n41 | n41 |
| CA\_n48 | n48 |
| CA\_n66 | n66 |
| CA\_n71 | n71 |
| CA\_n77 | n77 |
| CA\_n78 | n78 |
| CA\_n79 | n79 |
| NOTE 1: The minimum requirements only apply for non simultaneous Tx/Rx between all carriers for TDD combinations. | |

Table 5.2A.1-2: Intra-band non-contiguous CA operating bands in FR1

|  |  |
| --- | --- |
| NR CA Band | NR Band  (Table 5.2-1) |
| CA\_n3(\*) | n3 |
| CA\_n7(\*) | n7 |
| CA\_n25(\*) | n25 |
| CA\_n41(\*) | n41 |
| CA\_n48(\*) | n48 |
| CA\_n66(\*) | n66 |
| CA\_n77(\*) | n77 |
| CA\_n78(\*) | n78 |
| NOTE 1: The minimum requirements only apply for non simultaneous Tx/Rx between all carriers for TDD combinations.  NOTE 2: The notation CA\_nX(\*) in this table indicates intra-band non-contiguous CA for band nX. The configurations for each band are in 5.5A.2. | |

<Next changed section>

### 5.5A.1 Configurations for intra-band contiguous CA

Table 5.5A.1-1: NR CA configurations and bandwidth combination sets defined for intra-band contiguous CA for fallback group 1

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NR CA configuration / Bandwidth combination set | | | | | | | | |
| NR CA configuration | Uplink CA configurations | Channel bandwidths for carrier (MHz) | Channel bandwidths for carrier (MHz) | Channel bandwidths for carrier (MHz) | Channel bandwidths for carrier (MHz) | Channel bandwidths for carrier (MHz) | Maximum aggregated  bandwidth (MHz) | Bandwidth combination set |
| CA\_n1B | - | 10 | 10,15 |  |  |  | 40 | 0 |
| 15 | 15,20 |  |  |  |
| 20 | 20 |  |  |  |
| CA\_n7B | CA\_n7B | 10, 15, 20 | 10, 15, 20, 30, 35, 40 |  |  |  | 50 | 0 |
| CA\_n40B | - | 20 | 80 |  |  |  | 100 | 0 |
| 50 | 50 |  |  |  |
| CA\_n41C | - | 40 | 80, 100 |  |  |  | 180 | 0 |
| 50, 60, 80 | 60, 80, 100 |  |  |  |
| 10, 15, 20, 40, 50, 60, 80, 90 | 15, 20, 40, 50, 60, 80, 90, 100 |  |  |  | 190 | 1 |
| CA\_n48B | CA\_n48B | 51, 10 | 10, 15, 20 |  |  |  | 40 | 0 |
| 15, 20 | 5, 10, 15, 20 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| - | 10 | 50, 60, 80, 90 |  |  |  | 100 | 1 |
| 15, 20 | 40, 50, 60, 80 |  |  |  |
| 40 | 40, 50, 60 |  |  |  |
| 50 | 50 |  |  |  |
| CA\_n48C | - | 10, 15 | 90, 100 |  |  |  | 150 | 0 |
| 20 | 80, 90, 100 |  |  |  |
| 40 | 60, 80, 90, 100 |  |  |  |
| 50 | 50, 60, 80, 90, 100 |  |  |  |
| 60 | 40, 50, 60, 80, 90 |  |  |  |
| 80 | 20, 40, 50, 60 |  |  |  |
| 90 | 10, 15, 20, 40, 50, 60 |  |  |  |
| 100 | 10, 15, 20, 40, 50 |  |  |  |
| CA\_n66B | - | 5 2 | 20, 40 |  |  |  | 50 | 0 |
| 10 | 15, 20, 40 |  |  |  |
| 15 | 10, 15, 20 |  |  |  |
| 20 | 5 2, 10, 15 |  |  |  |
| 40 | 5 2, 10 |  |  |  |
| CA\_n71B |  | 5 | 20 |  |  |  | 25 | 0 |
| 10 | 15 |  |  |  |
| 15 | 10 |  |  |  |
| 20 | 5 |  |  |  |
| CA\_n77C  CA\_n78C  CA\_n79C | - | 50 | 60, 80, 100 |  |  |  | 200 | 0 |
| 60 | 60, 80, 100 |  |  |  |
| 80 | 80, 100 |  |  |  |
| 100 | 100 |  |  |  |
| CA\_n78B | - | 20 | 50 |  |  |  | 70 | 0 |
| NOTE 1: Unless otherwise stated, minimum requirements are applicable irrespective of the order of the component carriers.  NOTE 2: 5 MHz is not applicable for 30/60 kHz SCS. | | | | | | | | |

Table 5.5A.1-2: Void

<End of changes>